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Special Olympics Participation in School Age Children with Mental Retardation and its Effects on  
Self-Esteem

Graduate Thesis

Submitted to the Faculty

Of the School Psychology Program

College of Liberal Arts

**ROCHESTER INSTITUTE OF TECHNOLOGY**

By

Megan Lococo

In Partial Fulfillment of the Requirements  
for the Degree of  
Master of Science and  
Advanced Graduate Certificate

Rochester, NY

May 23, 2003

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## TABLE OF CONTENTS

Abstract . . . . .	4
Introduction . . . . .	5
Definition & History . . . . .	5
Breakdown of Degrees . . . . .	7
Levels of Mental Retardation . . . . .	8
Causes & Etiology . . . . .	11
Self-Esteem Development . . . . .	12
Measuring Self-Esteem . . . . .	14
Effects of Sport Participation . . . . .	15
The Special Olympics . . . . .	16
Method . . . . .	20
Participants . . . . .	20
Instrument . . . . .	21
Procedure . . . . .	23
Results . . . . .	23
Discussion . . . . .	25
References . . . . .	28
Tables . . . . .	33
1: Demographic Information . . . . .	33
2: Reported Levels of Self-Esteem . . . . .	34
Appendices . . . . .	35
1: Directions to Teachers . . . . .	36
2: Sample CBCL TRF . . . . .	37
3: Sample Demographic Questions . . . . .	38

## ABSTRACT

A comprehensive review of the literature and interviews with local experts has found a paucity of research on the self-esteem of school-age children with mental retardation. Long (1995), Zic & Igric (2001) and Siperstein & Leffert (1997) found lower self-esteem in self-report measures completed by mentally retarded children and adults. However, the psychometric properties of self-esteem self-report measures have been questioned repeatedly, finding insufficient reliability and validity when applied to mentally retarded populations (Finlay & Lyons, 2001; Widaman et al., 1992). The purpose of this study is twofold; the first goal is to determine the average self-esteem for mentally retarded children enrolled in BOCES classes, as observed by experienced teachers. The second purpose of this study is to determine the benefits, if any, of Special Olympics participation on the self-esteem of these children.

## Definition & History

One current definition of mental retardation is substantial limitations in present functioning characterized by sub-average intellectual ability concurrent with limitations in at least two adaptive behavior areas (APA, 1994; Drew, Hardman, & Logan, 1996). In addition, onset must be present prior to age 18 (Jacobson & Mulick, 1996). Functionally, children, adolescents and adults with mental retardation display difficulty learning and performing daily life skills, in addition to difficulty applying conceptual, practical and social skills (Drew, Hardman, & Logan, 1996). Research has determined that mentally retarded children and adolescents often have lower self esteem than their non-retarded peers, which can often result in withdrawal and isolation (Baroff, 1986; Richardson & Koller, 1996; Zic & Igric, 2001).

The specific definition of mental retardation varies across disciplines and has been criticized for its lack of precision in identifying mentally retarded individuals (Drew, Hardman & Logan, 1996). These difficulties, which are linked to the attempts to incorporate social advances and research progress while maintaining psychometric precision, have led to a number of revised definitions and differing standards (Drew, Hardman, & Logan, 1996; Smith, Ittenbach & Patton, 1998). The American Association for Mental Retardation (AAMR) and the National Center for Mental Hygiene published the first official definition of mental retardation in 1921. This definition was followed by revisions in 1933, 1941, and 1957, with each revision making the identification criteria more conservative, ultimately limiting the number of individuals who could be identified as mentally retarded. The 1973 AAMR definition was incorporated into the Education of Handicapped Children Act (PL 94-142), which mandated equal education for all children, regardless of disability status. This definition then became the federally recognized classification criterion for mental retardation. Changes in the 1973 definition included adding the specific deviation from the norm but also included the term “sub-average intelligence” which has become an integral

component in the current definition of mental retardation. Although the wording of the definition varies, according to AAMR and The American Psychological Association (APA, 1994), the standard criteria include sub-average intellectual functioning, deficits in adaptive behaviors, and onset prior to age 18 (Drew, Hardman, & Logan, 1996). Changes to the AAMR definition provided for more functional assessments that looked at cultural considerations when making decisions.

Included in the definition are four assumptions that are integral pieces when considering a mental retardation classification (Drew, Hardman, & Logan, 1996). These assumptions include a valid assessment that considers the child's cultural and linguistic diversity. The child's culture and native language are important to consider because following the Education of Handicapped Children Act in 1975, a number of culturally and linguistically different children were classified as mentally retarded (Smith, Ittenbach, & Patton, 1998). This surge of over-classification led to the term "six-hour retarded child" for children who were disadvantaged and culturally different and placed in special classes because they did poorly on the language-based assessment and adaptive measures. These children functioned poorly in school because of their cultural differences, but functioned normally outside of the classroom when compared to children from similar backgrounds. Children who are being classified as mentally retarded must demonstrate deficits in adaptive behaviors in the context of the community when compared to their same age peers. These deficits often co-exist with strengths in other adaptive areas, as is seen in non-retarded individuals who may demonstrate physical strengths at the same time as limitations in social skills (Drew, Hardman, & Logan, 1996). Finally, when classifying a child as mentally retarded, professionals generally believe that with supports over time the individual's life functioning will improve.

Definitions of sub-average intellectual functioning and adaptive skills have been clarified by revisions to the AAMR definition (Drew, Hardman, & Logan, 1996). A child that is being considered for a classification of mental retardation must perform with an IQ of 70/68 or lower

(Standard Deviation 15 on intelligence tests, except 16 on Stanford-Binet), based on a multi-faceted assessment by a recognized and trained professional. Adaptive skills or behaviors include one of ten areas: communication, self-care, home living, social skills, community use, life direction, health and safety, functional academics, and leisure & work. Individuals must demonstrate weaknesses in at least two areas; many individuals demonstrate strengths in other adaptive areas. These skills are also measured by trained professionals who generally rely on care-taker questionnaires and observations (Sattler, 2001).

Although the AAMR and Federal Government have established a definition of mental retardation, there are still inconsistent classification and identification criteria used, which make determining the prevalence and incidence difficult (Drew, Hardman, & Logan, 1996). Prevalence estimates range from 1-3% of the total U.S. population. In 1994, the Department of Education reported that 12% of children with disabilities were mentally retarded. Slightly more males are identified as mentally retarded, but this may be an artifact of the identification and referral patterns. Boys are referred for testing more often because of behavioral concerns and are more likely than girls to do poorly on adaptive measures (Wolfe, 1999).

### Breakdown of Degrees

Mental Retardation is broken down by degrees of severity (Jacobson & Mulick, 1996): Mild, Moderate, Severe, Profound, & Unspecified. Each degree is associated with different patterns of adaptive and cognitive skill development (Table 1) and related to a different adaptive developmental trajectory, from childhood to adulthood. As the degree of mental retardation becomes more severe, the growth curves for adaptive behavior flatten out, and in some instances may decrease (Eyman & Widaman, 1987). According to Eyman & Widaman (1987), trends show that mildly and moderately mentally retarded individuals are those who demonstrate delays in instrumental daily activities, such



as self-care and social skills. Those with severe and profound mental retardation demonstrate delays in motor-related self-care skills and pronounced delays in instrumental daily activities.

The AAMR outlined four dimensions for diagnosing, classifying, and determining support for mentally retarded individuals (Drew, Hardman, & Logan, 1996). The first dimension, related to the individual's intellectual functioning and adaptive behaviors, includes gathering information about the IQ, the age of onset and the limits in adaptive behaviors. In addition, the individual's strengths, weaknesses and academic/adaptive skills are considered. Dimension two includes psychological and emotional considerations, a part of a multifaceted clinical assessment. The third dimension includes physical, health and etiology considerations. Was the retardation preventable, as in cases of Fetal Alcohol Syndrome (FAS)? What are the rehabilitation and educational implications? What is the prognosis for treatment and vitality, especially when related to genetic disorders such as phenylketonuria (PKU)? The final dimension of the AAMR classification system includes environmental considerations, the current living environment and the most optimal environment for growth, development and functioning. With this classification system, professionals can develop a profile of the supports needed: intermittent, limited, extensive or pervasive. An interdisciplinary team provides the comprehensive analysis of present and potential functioning (Drew, Hardman, & Logan, 1996).

### Levels of Mental Retardation

Individuals with Mild Mental Retardation (IQ levels between about 55 and 75) make up 90 percent of the mentally retarded population (Drew, Hardman, & Logan, 1996). These individuals demonstrate small delays in preschool but are generally not identified until formal schooling begins, when they encounter academic failures or demonstrate behavior problems (Jacobson & Mulick, 1996). Before most formal schooling begins most children with mild mental retardation can perform as expected; however upon school entry, children with mild mental retardation demonstrate

difficulty learning and acquiring academic skills (Drew, Hardman, & Logan, 1996). These children become highly visible to their teachers and are then identified. Mildly mentally retarded individuals develop normal and functional language skills as demonstrated by the ability to engage in interactive and spontaneous play with peers. With adequate schooling, adults may develop reading and number skills up to a 6<sup>th</sup> grade level. Baroff (1986) described the mental age of mildly mentally retarded adults as equivalent to an 8-11 year old non-retarded child. The individual's low academic attainment skills limit vocational opportunities. However, despite these low academic skills, mildly mentally retarded adults are generally able to obtain and fulfill normal adult roles, such as keeping a basic job and interacting successfully with peers (Jacobson & Mulick, 1996).

Moderately mentally retarded individuals (IQ levels between about 35 and 55) demonstrate consistent deficits that are evident in the delayed mastery of early developmental milestones (Jacobson & Mulick, 1996). Delays are especially evident in language and social skills as these children may only use single-words and gestures to communicate throughout the elementary school period. During the elementary school years, these children show similar developmental patterns as those exhibited by 2-3 year olds, in terms of language usage and social interaction skills. Baroff (1986) noted that by age 12, moderately mentally retarded adolescents may develop useful pragmatic skills, but inevitably demonstrate significant delays in adaptive and academic skills. By 14, these adolescents may develop basic self-care skills, may initiate simple conversations, and may begin to read. Adults with moderate mental retardation are typically described as having the mental age (MA) equivalent to a child 6-8 years old. These adults generally have functional language but very limited vocational employment opportunities because of their poorly developed reading, money, and number skills. Adults with moderate mental retardation generally do not achieve independence and may require residential settings to ensure their basic needs are met (Jacobson & Mulick, 1996)

Children with severe and profound forms of mental retardation (IQ's below 35 and below 20, respectively) are most often identified in infancy, due to the significant developmental delays and biological anomalies (Jacobson & Mulick, 1996). Individuals with severe mental retardation may achieve basic developmental milestones, such as standing, walking and toileting, but they are delayed up to several years. These children are at greater risk for seizure and motor disorders than their mildly or moderately mentally retarded peers because of the organic and biological anomalies present. Baroff (1986) noted that by age 6-9, severely mentally retarded children may develop basic self-care skills, such as feeding, dressing and toileting, but with intense training and interaction. These individuals may be able to communicate with single words and gestures and may engage in parallel play with peers (Jacobson & Mulick, 1996). By early adolescence, severely mentally retarded individuals may use 2 and 3 word phrases and may attain academic and adaptive skills similar to a 4-6 year old. Some self-care skills may be attained as adults, but these individuals often require assistance. Communication is difficult for children and adults with severe forms of mental retardation. They demonstrate adequate receptive skills, but poorly developed expressive skills often lead to unintelligible speech. Functional reading and number skills remain undeveloped. Vocational opportunities and productivity are possible with close supervision and assistance.

Infants with profound mental retardation experience a higher infant mortality rate than do peers with severe, moderate, or mild forms of mental retardation (Jacobson & Mulick, 1996). These infants are identified as mentally retarded based on the marked developmental delays and biological anomalies. Switzsky, Haywood & Rotatori (1982) identified two subgroups of profoundly mentally retarded individuals. The first group is composed of those individuals who lack all adaptive skills and exist in a medically fragile state. The second group is made up of individuals who are less medically fragile, and organically involved who may achieve some communication, language, and self-help skills. By age 10, individuals with profound mental retardation may acquire basic self-care

skills or walking, but they require constant supervision and care. Baroff (1986) describes the mental age of profoundly mentally retarded adults as similar to that of infants to 4-year olds. Children, adolescents, and adults with profound mental retardation may be further impaired by sensory and motor difficulties that make adaptive skills difficult (Jacobson & Mulick, 1996). These individuals do not develop functional, vocational, social or community skills, but do benefit from individually structured interactions.

### Causes & Etiology

The causes of mental retardation and the characteristics demonstrated are described as organic (biological) or cultural-familial (environmental) (Wolfe, 1999). Organic causes of mental retardation are genetic interactions with the environment, but can be traced to a clear cause. Examples include Fetal Alcohol Syndrome, which is the most common preventable type of mental retardation, and phenylketonuria (PKU), which can be identified and treated with a vigorous diet. Organic causes make up 2/3 of all of the profound cases of mental retardation and can often be linked to prenatal (FAS or PKU) or perinatal insults, such as anoxia, head injury or meningitis. Organic causes affect races and different socioeconomic classes at equal rates and are often associated with other physical disabilities.

Cultural-Familial mental retardation has no clear cause and is associated most with mild cases of mental retardation. Environmental factors, such as poverty, inadequate care and stimulation and parental psychopathology all affect the child's psychological development (Wolfe, 1999). Genetics play some role in these cases, as can be seen in family history genograms, which demonstrate a clear heritability. However, environmental interactions and experiences seem to have a strong impact. The incidence of Cultural-Familial types of mental retardation is highest among low SES and minority groups and is associated with few physical disabilities.

## Self Esteem Development

Infants explore their world relying on their basic sensorimotor functions, such as touching, tasting, and manipulating objects in order to learn (Mash & Wolfe, 1999). Everything to the infant is new and the brain is establishing and strengthening millions of new connections. Toddlers then begin to acquire language and utilize past memories to help interpret and understand the world. The ways in which we conduct ourselves are strongly influenced by the ways others perceive us and behave around us (Richardson & Koller, 1996). Mentally retarded children progress through the same processes and achieve similar developmental milestones, but important differences exist in both cognitive development and the development and maintenance of self-esteem.

Self-esteem is a component of self-concept that changes with age (Berk, 2000). Self-esteem is defined as the judgments we make about ourselves regarding our own worth and ability and the feelings associated with those judgments. Harter (1983) describes self-esteem as the value or worth attached to self-descriptions. It describes approval and disapproval, as it indicates the extent to which a person believes in his/her capabilities. Self-esteem is viewed as a personal judgment of worth that the person holds toward him/herself. High self-esteem implies a realistic self-evaluation, regarding personal characteristics, competencies, and strengths and weaknesses (Berk, 2000). Coopersmith (as cited in Castagno, 1991) found that in order to develop high self-esteem, children need total acceptance by parents and peers. Self-esteem is one of the most important aspects of development because it has long-term effects on emotional experiences and long-term psychological development.

Around age 2, non-retarded children learn to make positive or negative judgments as they become self-evaluative (Berk, 2000). This is the first step in self-esteem development that begins when children use early self-classification styles according to salient variables, such as age, gender, goodness or badness. When children can make judgments they are more likely to smile and call

attention to their successes. Harter (1983) noted that preschoolers distinguished their social acceptance from how good they were at completing tasks. By the age of 6 or 7, Berk found that children's self-esteem differentiates into three components; academic, physical and social, with each becoming more refined with age. These different components allow children to combine their separate evaluations into a general self-image, known as overall self-esteem. Each component carries with it a different weight, depending on individual differences and views on importance. Research shows that initially, self-esteem is high and often inflated in early childhood, but then drops during the first few years of formal schooling because children begin to make social comparisons in relation to their classmates and peers (Marsh, Cravens & Debus, 1998; Wigfield et al., 1997).

“A person's [self-esteem] has been viewed as heavily influenced by life experiences. Thus, one might expect that . . . intellectual inadequacy and pervasive stigmatization of retarded persons would result in their having lower [self-esteem] than non-retarded individuals” (Zigler & Hodapp, 1986, pp. 133)”

Despite the cognitive delays and differences, individuals with mental retardation have the same social and emotional needs as their non-retarded peers (Smith, Ittenbach & Patton, 1998). However, these children have fewer experiences in which they are able to demonstrate appropriate behaviors and adaptive skills. These children are also aware that they are different and less competent than their peers (Richardson & Koller, 1996). Often, retarded individuals are perceived as different, “as if they were member of a different species” (Baroff, pp. 64). As a result of societal values and stereotypes, mentally retarded individuals are likely to experience negative behaviors from others which communicate that they are deviant and possess undesirable characteristics, like physical anomalies and mental deficits (Baroff, 1986). Mentally retarded children and adults demonstrate lower self-esteem when compared to non-retarded peers and increased rates of emotional and behavior problems linked to the self-esteem deficits (Richardson & Koller, 1996; Smith, Ittenbach &

Patton 1998; Widaman, MacMillan, Hemsley, Little & Balow 1992; Zic & Igric, 2001). Cromwell (1959) suggested that the lower levels of self-esteem in children with mental retardation could be attributed to experiencing a high frequency of failures in daily experiences, which may also contribute to meeting new experiences with low and unrealistic expectations. These low levels of self-esteem are characteristics of both adults and children with mental retardation, as low self-esteem is considered an enduring personality characteristic of those with mental retardation (Dykens, Rosner, & Butterbaugh, 1998).

### Measuring Self-Esteem

A comprehensive review of the literature and interviews with local experts has found little research on the self-esteem of mentally retarded individuals (Brownell, G., personal communication, July 2, 2002). The lack of research is partly attributed to problems in instrumentation. Furthermore, the little research that is available consistently finds lower self-esteem levels in mentally retarded children and adults (Evans, 1998; Widaman, et al., 1992). In an analysis of 144 9-14 year-olds, Long (1995) found that mentally retarded students had lower self-esteem than their non-disabled peers. Zic & Igric (2001) reported that children with developmental difficulties showed significant social skill deficits, which led to increased isolation and withdrawal. Children with intellectual deficits were not accepted by their classmates, which resulted in lower class rank positions for those children when compared to the general class population. Siperstein & Leffert (1997) found that children with mental retardation experienced lesser degrees of social acceptance and more peer rejection than non-retarded classmates, which can lead to deflated self-esteem.

The psychometric properties of the self-esteem evaluation scales have been questioned repeatedly, finding insufficient reliability and validity when applied to mentally retarded populations (Finlay & Lyons, 2001; Widaman et al., 1992). Salvia and Ysseldyke (2001) defined self-report measures as those in which individuals are asked to reveal their own behaviors and feelings. Rating

scales are based on perceptions, rather than reality, as individuals may “fake” answers in order to appear good (Piers as cited in Castagno, 1991; Witt, Heffer & Pfeiffer 1990; Wylie as cited in Castagno, 1991). Additionally, individuals often find it difficult to observe themselves and their actions. Witt, Heffer & Pfeiffer (1990) also noted discrepancies between children’s self-ratings and parent or teacher rating of the same behaviors. The poor psychometric properties and limited validity from self-report instruments are related to the fact that social and emotional behaviors are less stable than cognitive behaviors (Sattler, 2001).

Harter (1983) noted that general self-esteem measures purport to measure different constructs. Some measures concentrate on skills and achievements, whereas others tap morality, likeability and acceptance. In addition, the items are often worded such that they do not simply describe behavioral tendencies, but require inferences to be made. Self-esteem scales developed for general populations often have lower reliabilities when used with individuals at the extreme low or high ends of a normal distribution; mentally retarded individuals are at or below the second percentile when compared to peers nationwide on intelligence and adaptive measures (Widaman et al., 1992). Problems with communication are also associated with mental retardation (Finlay & Lyons, 2001). These difficulties include difficulty in producing symbols, a lack of understanding of complex grammatical structures, and difficulties with contextual questions. The use of questionnaires designed for the general population is often inappropriate for mentally retarded individuals because of the respondent’s inability to comprehend the questions and clearly express answers.

### Effects of Sport Participation

Mentally retarded children have lower self-concepts and less developed motor skills than their non-disabled peers (Zaichowski, Zaichowski and Martinek, 1981). A positive self-concept in children enables successful peer interactions because youngsters with increased self-concept are



more confident and secure (Fitts 1972). Simpson (1979) found that physical activity provides the successful experiences and reinforcement that enable positive interactions between disabled and non-disabled children. Throughout development, self-perceptions change based on the ways others react. As children mature they develop ideal self-images through interactions with parents, siblings, and peers. A total self-concept results from collective feelings, including motor skills (Castagno, 1991; Cratty & Martin, 1969). As children enter school, especially physical education classes, they begin to develop attitudes about themselves, based on their motor skills and performance in physical education classes, compared to peers.

Experts in the field of adaptive physical education have noted the improvements in self image in individuals with mental retardation following sport participation (Dyken, 1996; Riggin & Ulrich, 1993; Sherrill, 1997). Sports participation and formal programs, such as the Special Olympics, are linked to positive psychosocial effects and reduced maladaptive behaviors (Dyken, Rosner, Butterbaugh, 1998). In addition, compared to non-disabled peers, children with mental retardation typically have higher levels of cardiovascular problems, lower muscular endurance rates, and a higher incidence of obesity. However, research has found that exercise programs resulted in significant improvements in cardiovascular endurance, weight loss, and improved aerobic capacity (King & Mace, 1990)

### The Special Olympics

Children and adults with motor disabilities often develop motor skills at a slower rate than their non-disabled peers (Brunidge, Hautala & Squires, 1990). Often, these delays begin in infancy and are compounded over time. Persons with disabilities demonstrate poor physical fitness, as only 10 percent are estimated as being capable of achieving adequate fitness levels. In 1946 the Joseph P. Kennedy, Jr. Foundation was developed with the mission to prevent mental retardation by identifying its causes and to improve society's interactions with those who are mentally retarded

(Vanderslice, 2002). For many years, competitive sports were closed to people with disabilities. Special Olympics (S.O.), established by the Kennedy Foundation in 1960, provides sports training and competition for athletes and individuals with mental retardation (Block & Moon, 1992; Klein, Gilman & Zigler, 1993; Dykens & Cohen, 1996; Vanderslice, 2002; Castagno, 2001). The Special Olympics has become the largest sports program for mentally retarded people world-wide, with more than a million athletes in over 150 countries ([www.nyso.org/new](http://www.nyso.org/new), 2002; Dykens & Cohen).

The Special Olympics' mission is to "provide year round sports training and athletic competition in Olympic-type sports for children and adults with mental retardation" (Dykens & Cohen, pp. 223). The goal is to provide people with mental retardation the opportunity to enjoy and benefit from training programs and competition (Klein, Gilman & Zigler, 1993). Special Olympics proposes that the participation opportunities it provides help mentally retarded individuals develop courage and physical fitness and experience joy.

The requirements for participation in the Special Olympics are minimal: the individual must be identified by a professional or agency as having mental retardation; demonstrating a cognitive delay as determined by standardized measures, and having functional limitations in general learning and adaptive skills ([www.nyso.org/new](http://www.nyso.org/new), 2002). Special Olympics is open to those who are mentally retarded and are physically capable of competitive activities, and is also open to those incapable of activity. The Special Olympics Motor Activities Program (MATP) emphasizes physical training and participation rather than competition. Children as young as 8 years old are eligible for competition, but 6 and 7 year olds may participate in age appropriate training programs. Participation is free. One component of the philosophy behind the Olympics is that everyone deserves a chance to do his or her best and that anyone that wants to can participate (Privett, 1999).

All Special Olympics sports follow internationally accepted rules, which are adapted to the needs of the participants (Klein, Gilman & Zigler, 1993). Athletes are grouped according to age

and ability level in order to equalize the chance to succeed. Anyone can participate in local meets; first through third place winners go on to qualify for state competitions. In order to move onto higher competitions, athletes must place in the top three of their event, and must also have participated in at least an 8-week training program. In each competition, the top three participants receive medals, and all others receive ribbons for participation. Songster (1984, cited in Klein, Gilman & Zigler) stated that the ultimate goal of the Special Olympics is for athletes to “graduate” to regular sports programs within the community that allows the athletes to participate on the same teams as individuals without mental retardation.

Critics of the Special Olympics, as they initially existed, cited many limitations to the organization (Block & Moon, 1992). Since the Special Olympics groups mentally retarded individuals together in a large venue, they may initiate a self-fulfilling prophecy about the deviant characteristics of mentally retarded individuals. Critics claimed that this format of grouping participants together evokes sympathy, pity and promotes a general stigma (Orellove, Wehman & Wood, as cited in Block & Moon, 1992). Watching the mentally retarded athletes could potentially evoke feelings of sympathy and pity, rather than courage and joy. Because Special Olympians only compete with other mentally retarded peers, they are not given the opportunity to develop new skills or to receive instruction on interacting with non-disabled peers, which adds to the social problems they experience in the real world and at school. Recommendations were made that Special Olympics events and participation should be low priorities in the overall development of mentally retarded individuals. Finally, critics cited the highly competitive nature of the Special Olympics and questioned the original mission statement established by Special Olympics founders. In addition to providing criticisms, Orellove, Wehman & Wood (as cited in Block & Moon, 1992) provided suggestions for improvement, such as including non-disabled participants in events, developing well-

balanced recreation programs, and including mentally retarded students in community-based recreation programs.

In response to the criticisms, Block & Moon provided evidence of the substantial changes made to the organization since 1982. (Block & Moon, 1992). The Special Olympics has developed Unified Sports programs, beginning in 1988 and Sports Partnerships and Partners Clubs that are designed to include non-disabled or retarded children on teams to participate in the Special Olympics competitions. The participants, mentally retarded or not, are all approximately the same age and have the same ability level. Unified Sports programs aim to promote competence and skills in all team members (Castagno, 2001). The goals of Unified sports teams include developing physical skills, enhancing self esteem and confidence, providing socialization and friendship opportunities, facilitating community involvement and providing opportunities for competition between matched teams. Sports Partnerships allow athletes with mental retardation to be included on high school or local club teams for practice and training opportunities. Partners Clubs match non-disabled peers with mentally retarded individuals to provide athletic training, social interactions, and other recreational events at school or in the community. In addition to broadening the athlete base for competition, the Special Olympics now offers 16 official summer sports, 6 unified sports, 6 winter sports, 3 senior sports, and motor activities training programs. The many sports that have been added include leisure activities, such as roller-skating, cycling, long-distance running, and ice-skating. Finally, in response to the criticism mentioned by Orelove, Wehman & Wood (1982), the Special Olympics includes students with mental retardation in community-based programs. The agency is active in encouraging and assisting community-based programs to open their services to those with mental retardation. Although their mission statement is directed towards providing sports opportunities, the organization aims to develop social skills and emotional well-being in its participants (Dyken, Rosner & Butterbaugh, 1998)

## METHOD

### Participants

One-hundred and two students classified mentally retarded and placed in one of two Board of Cooperative Educational Services (BOCES) locations in Upstate New York (Monroe I Creekside & Wayne Finger Lakes) were initially included in the sample. From the initial 102 surveys, 74 were returned and included in the final October sample and 85 in the February sample. The group varied by gender, race, age, severity of mental retardation, and Special Olympics participation (Table 1). For the October administration 27 females and 47 males were included as participants, while the February sample included 43 males and 42 females. African Americans composed 21.6% of the sample ( $n=16$ ), Caucasians 68.9% ( $n=51$ ), Hispanics 6.7% ( $n=5$ ), and Asians composed the final 0.1% ( $n=1$ ). The students were grouped by age, with those aged 6-11 representing 36.5% ( $n=27$ ), and those aged 12-18 representing the remaining 63.5% ( $n=47$ ). In February, the numbers changed slightly, with a total sample size of 85 students. Of those, 53 were males and 32 were females. Fifty-nine (68.9%) were Caucasian, 17 (19.8%) were African American, 5 (5.8%) were Hispanic, 1 (1.2%) was Asian, with 4 (4.7%) missing a rating for race. Twenty-seven (31%) were between the ages of 6 and 11 and 58 (69%) were between 12 and 18. Special class teachers reported the student's level of mental retardation based on the most recent psychoeducational report. In October mildly mentally retarded students composed 21.6% ( $n=16$ ) of the sample, those moderately affected composed 43.2% ( $n=32$ ), severely mentally retarded students accounted for 18.9% ( $n=14$ ), while profoundly affected students composed 9% ( $n=7$ ) of the final group. In February, eighteen of the participants (18.6%) were mildly mentally retarded, 43 (50%) were moderately mentally retarded, 15 (17.4%) were severely retarded and 7 (8.1%) were profoundly mentally retarded. There were 4 (4.7%) blank ratings. Finally, students were grouped based on whether or not they participated in the Fall 2002 New York Special Olympics, with 52.7% ( $n=39$ ) participating and 47.3% ( $n=33$ ) not participating.

In the February administration, 52% ( $n=45$ ) of the students sampled were participants in the Winter 2003 Special Olympics, while 29% ( $n=25$ ) did not participate. Seventeen percent ( $n=15$ ) of ratings were missing for this set.

### Instrument

The Child Behavior Checklist (CBCL) provides a measure of a child's internalizing and externalizing behaviors. Internalizing behaviors, such as depression and anxiety, are those that are distressing to the child but not easily observable. Externalizing behaviors, however are characterized by overt problems, such as excessive anger, aggression or hyperactivity (Sattler, 2002). Achenbach (1991) noted that teacher's reports on their students' behavior are integral components in educational success and intervention planning. School is an area in which children spend a large part of their day. The educational setting is one of the primary arenas in which children develop social/emotional or behavioral deficits not present in the home environment. Following parents, teachers are the second most important adults in children's lives. They can report on aspects of children's lives that are not obvious to parents. Teachers are not likely to be affected by family dynamics; they are considered objective observers of children's behaviors.

The Teacher Response Form (TRF) of the CBCL is designed to obtain teacher's observations of students' problems in a standardized format (Achenbach, 1991). Items are scored on a 3-point Likert scale (0- not true, 1-somewhat true, and 2-always true) and represent social, emotional and behavioral domains (Achenbach & Rescorla, 2001). Teachers are asked to base their ratings on the past 2 months of interaction with the child. Scores are tallied and plotted on the profile form, which gives a visual representation of the child's behaviors. T-scores with a mean of 50 and a standard deviation of 10 are obtained from the answers provided. The "borderline to clinical range" is considered 65-69, which indicates that the child's behaviors in that cluster are worthy of concern and further investigation, although, not as deviant as those in the clinical range,

which includes scores above 70. Scores in the borderline and clinical ranges clearly distinguish between these typical children and those referred for mental health or special education services or those with behavioral and emotional problems.

The TRF provides a measure of the child's functioning in social, emotional and behavioral domains as observed and described by teachers in the school setting (Achenbach, 1991). All forms of the CBCL, including the Parent Response Form, TRF, and the Youth Self Report (YSR) were initially developed in 1983 by Achenbach & Edelbrock, but were later revised and re-published in 1991 and, most recently, in 2001. The most recent revisions of the TRF included a sample of 4437 children gathered in 1999 (Achenbach & Rescorla, 2001). The TRF sample was composed of teachers and students from sixty mental health and special education settings in 40 states, and also included the norms from the 1991 revision. The 1991 sample included 1391 teachers. The total sample was composed of 1332 boys between the ages of 6 and 11; 1098 boys age 12 to 18; 1042 girls age 6 to 11, and 965 girls between the ages of 12 to 18.

Reliability and validity are important aspects to evaluate when choosing assessment techniques (Salvia & Ysseldyke, 2001). The inter-rater reliability for the CBCL TRF was determined to be .96, in the very high range, for the problem items being measured (Achenbach & Rescorla, 2001). Theoretically traits should be perfectly stable or have very little change over time. Devices such as the CBCL that are used to assess personality characteristics must provide stable measurements over time in order to be practical and have meaning for educational decisions. The test-retest reliability for the CBCL TRF is 0.95, in the very high range (Achenbach & Rescorla, 2001). Internal consistency is based on coefficient alpha, which is the average correlation of test items, but it does not provide an estimate of stability over time. The coefficient alpha for the TRF is between 0.72 and 0.95, in the moderately high-to-high range (Achenbach & Rescorla, 2001).

Validity is an overall measure of a test's usefulness and meaningfulness (Salvia & Ysseldyke, 2001). Content validity is the extent to which the test items represent the domain or characteristics the test reports to measure. Generally, this type of validity relies on expert opinions regarding the appropriateness of the test items. Content validity also requires a clear definition of the domain being measured. Achenbach & Rescorla (2001) report that the CBCL problem items have been developed and refined, based on research findings and personal experiences. Item development and refinement is based on literature searches and consultation with mental health personnel, including special education teachers and parents. In their analysis, test items were found to accurately discriminate referred children from those in the non-referred general population (Achenbach & Rescorla, 2001). Analysis found that after controlling for demographic variations, the CBCL TRF has satisfactory concurrent validity as demonstrated by the high correlations with the Conners' Teacher Rating Scale, DSM criteria, and the Behavior Assessment System for Children (BASC). Correlations range from 0.77 to 0.89 (Achenbach & Rescorla, 2001; Sattler, 2002). Construct validity is a measure of the extent to which the test actually measures the characteristics or constructs it reports. This type of validity relies heavily on direct evidence, such as observation (Salvia & Ysseldyke, 2001). The ASEBA and CBCL scales have been well researched and findings indicate that each type of informant can make sound assessments and observations of the behaviors in question on these measures (Achenbach & Rescorla, 2001). There have been over 4,000 published studies using CBCL instruments, providing evidence of the construct validity of CBCL scales.

### Procedure

The TRF is composed of 113 items, but only 24 were selected for this survey because these provided the most information about each student's self-esteem and social interactions. The 24 questions were highlighted so that teachers could easily distinguish them. Seventeen special class



teachers were recruited to complete surveys on their student's self-esteem. Each teacher was given the appropriate number of survey forms. In addition, demographic data was collected via a questionnaire attached to the front of the survey form. Teachers were asked to complete 24-questions, which composed the Anxious/Depressed and Social Problems clusters of the CBCL-TRF

Initially 102 surveys were distributed to teachers, depending on the reported number of students in their class. Teachers were given specific directions as to completing the CBCL and were given a designated one to two-week time period in which to complete the surveys. Surveys were mailed in early October 2002, and late October 2002 and early and late February 2003, based on the Fall (October 2002) and Winter (February 2003) Special Olympics Games, which served as the treatment variable. In the end, 72% of the pre and post-treatment surveys were returned after the final, late October administration. 100% of the surveys were returned in the final February administration most likely because the attrition rate had been accounted for based on the October data.

## RESULTS

First, this study investigated whether there are differences in the self-esteem of school age students with mental retardation as compared to their non-retarded peers. It further investigated the effect of Special Olympics participation on self-esteem for the same mentally retarded children.

The data collected for the study were derived from the Child Behavior Checklist, Teacher Response Form. For each participating student, teachers completed the rating scale based on their interactions throughout the school year. Data were collected four times: early and late October 2002, early and late February 2003. The early October and February administrations were considered the "pre-tests", while the late month administrations were considered the "post-tests",

with the fall or winter New York State Special Olympics Games, held October 10-12, 2002 and February 20-22, 2003, serving as the treatment condition.

The results were analyzed with three different statistical procedures. A T-test was used to determine the difference between the average self-esteem for the general population in the standardized sample of the CBCL compared with the average for the mentally retarded participants. On the CBCL an average score is 50. Higher scores signify problematic behaviors, such as poor communication skills, crying, complaining or being clingy with adults and peers, which are often linked to low self-esteem. This means that teachers who are completing the rating scale are seeing more maladaptive behaviors within the classroom, which often affect social interactions, leading to lower self-esteem ratings. Using the ratings from the October pre-test administration, a T-test revealed a significant difference ( $t(73) = 12.71, p \leq 0.00$ ) between the average self-esteem for this sample of mentally retarded students ( $M = 63$ ) and the standardized sample general population ( $M = 50$ ). These results also held true for the second pre-test questionnaire administration in February ( $t(80) = 14.485, p \leq 0.00$ ) with an overall Mean of 61 for the mentally retarded students.

A one-way ANOVA was conducted to determine possible self-esteem differences based on the reported severity of mental retardation (Table 2). The Scheffé's Method post hoc comparison procedure was performed for significant main effects and differences. The ANOVA revealed significant differences in reported self-esteem ratings based on the student's level of mental retardation for the October administration ( $F(4) = 5.7, p \leq 0.00$ ) and for the February administration ( $F(4) = 7.112, p \leq 0.00$ ). The Scheffé's Method found a statistical significance between the 33 students classified as moderately mentally retarded in the October administration and the 14 classified as severe (Mean Difference = 9.2,  $p \leq 0.017$ ). In both the October and February administrations a significant difference was found between moderately retarded students and those with profound

mental retardation ( $n=7$  for both administrations, Mean Difference = 11.74 & Mean Difference = 10.9125,  $p \leq 0.021$  &  $p \leq 0.003$ , respectively).

Finally, a Two-Way Repeated Measures Within Subjects Comparison was used to determine the effect of New York Special Olympics participation on self-esteem. The Dependent Variables were the pre and post-test self-esteem scores with participation or non-participation in the Special Olympics being the independent variable for this analysis. Unlike the previous analyses, the comparison by participation revealed no statistical difference in self-esteem based on Special Olympics participation ( $F(72) = 0.32, p \geq 0.5$ ). The same results held true for the February administration ( $F(85) = 1.77, p \geq 0.5$ ). Further analyses were conducted on the 29 students who participated in both the Fall and Winter Special Olympics Games, which again, revealed similar insignificant results ( $F(85) = 1.77, p \geq 0.5$ ).

## DISCUSSION

The present data confirm that students with mental retardation have significantly lower self-esteem than their non-retarded peers (Long, 1995; Siperstein & Leffert, 1997; Zic & Igric, 2001), but does not find that up to two episodes of Special Olympics participation has any effect on self-esteem. Each level of mental retardation (mild, moderate, severe, and profound) was represented in this study.

Although none of the previous studies differentiated self-esteem levels based on level of mental retardation, the present study determined that students with moderate mental retardation (IQ 35-54) had the lowest self-esteem ratings, based on teacher reports. Mildly mentally retarded students (IQ 55-75) often blend in with their peers until they encounter difficulties upon school entry (Jacobson & Mulick, 1996). These children often engage in appropriate social and play interactions with their peers (Drew, Hardman, & Logan, 1996). Mildly mentally retarded students benefit from intensive academic support, which can be provided within the public school

environment. However, moderately mentally retarded students demonstrate consistent delays beginning early in life with developmental milestones. These children appear behind their typically developing peers and as Baroff (1986) notes, they unavoidably demonstrate significant delays in adaptive and academic skills. Moderately mentally retarded students encounter a great deal of failure in their early elementary years. These children often require more differentiated instruction and services than can be provided, until they are placed in more intensive-alternative settings. In addition, children with moderate mental retardation find social and play interactions more difficult than their mildly retarded peers. It is hypothesized that these children are aware of their differences based on their class placements, which lead to the lower levels of self-esteem. These social failures often lead to lower self-esteem, in addition to difficulty meeting social expectations (Cromwell, 1959).

Although Dykens & Cohen (1996) determined that Special Olympics participation was effective at raising the self-esteem of mentally retarded students, this study did not find evidence to support this hypothesis. This study utilized a small sample size ( $N=74$  &  $N=85$ ), which makes generalization difficult and makes it difficult to determine significance. The students in the sample size are representative of a limited population, both in location and educational placement. Each student included as a participant was from the Finger Lakes region of New York. In addition, the students were limited in their educational placements; they were all included in self-contained classrooms on a campus run by the Board of Cooperative Educational Services (BOCES). These students had little contact with regular education students, as they were placed outside their home districts.

According to Evans (1998), children's perceived inadequacies, repeated failures and prolonged stigmatization are risk factors for low self-esteem. Thus, mentally retarded students are prone to a negative self-concept and poor self-esteem. Class placement becomes an important issue

for these children. While some experts fear the negative impact of a self-contained classroom due to the isolation, others fear the same results for students in inclusion settings. The Social Comparison Theory posits that children seek out others who are similar to themselves and base their self-evaluations on those comparisons. Schurr, et. al (1972) found that educationally handicapped children's self-esteem raised when they were placed in special classes and that the same children experienced lower self-esteem ratings when they were placed back into regular classrooms.

Further limitations of this study include the length of time in which data was collected. For future studies, it is recommended that longitudinal data be collected, to help provide a more stable baseline from which to make comparisons. In addition, no information was gathered regarding the intensity with which the student takes part in Special Olympics activities. Students who attend regular training and team-building activities may have demonstrated greater gains in self-esteem over time. It would also be important to distinguish among different sports to determine any self-esteem differences based on activity. Team sports may help students develop higher self-esteem than individual sports; however larger samples, further analysis and data are required to complete these studies.

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Table 1: Children in Sample by Demographic Variables and Level of Mental Retardation

<u>Variable</u>	<u>October Sample(N=74)</u>		<u>February Sample (N=85)</u>	
	<u>Frequency</u>	<u>Percent</u>	<u>Frequency</u>	<u>Percent</u>
<u>Gender</u>				
Male	47	63.5%	43	50%
Female	27	36.5%	42	50%
<u>Age</u>				
6-11yrs	27	36.5%	27	31%
12-18yrs.	47	63.5%	58	69%
<u>MR level</u>				
Mild	16	21.6%	18	18.6%
Moderate	33	44.6%	43	50%
Severe	14	18.9%	15	17.4%
Profound	7	9.5%	7	8.1%
(Missing Data	4	5.4%	4	4.7%)
<u>Race</u>				
Caucasian	52	70.3%	59	68.9%
African Amer.	16	21.6%	17	19.8%
Hispanic	5	6.8%	5	5.8%
Asian	1	1.4%	1	1.2%
(Missing Data	0	0%	4	4.7%)
<u>Special Olympics Participation</u>				
Yes	39	52.7%	45	52%
No	33	44.3%	25	29%
(Missing Data	2	4%	15	17%)

Table 2: Comparison of Reported Level of Self-Esteem for students by Level of Mental Retardation

## October Administration:

<u>Level of Retardation</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Mild	16	61.1250	7.38580
Moderate	33	67.5303	10.23088
Severe	14	58.3214	1.98656
Profound	7	55.7857	2.99802
Blank	4	67.2500	6.95821
Total	74	63.2770	8.98177

## February Administration

<u>Level of Retardation</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Mild	18	61.4063	7.3829
Moderate	43	63.4125	7.0546
Severe	15	58.6786	1.8145
Profound	7	52.5000	4.2720
Blank	4	70.2500	6.3046
Total	85	61.5926	7.2029

APPENDICES

Appendix 1: Directions to Teachers

Dear Special Class Teacher:

With the approval of the Institute Review Board at Rochester Institute of Technology and your school administrator I am conducting a survey on the self-esteem of children classified as mentally retarded.

In order to conduct my study, I need your assistance. Your participation is completely voluntary with no adverse consequences should you choose not to participate or withdraw from this study at any point. Please know that no identifying information on you or your students will be gathered; only first and last initials will be used. Only group data is sought and will be reported in any publications based on my study.

Data will be gathered on the 24-question survey, and brief demographic survey attached. **PLEASE COMPLETE ONLY THE HIGHLIGHTED QUESTIONS.** You will be asked to complete this survey at the beginning and end of October, the beginning of February and March. Each time you will receive a packet with one survey for each student in your classroom. Arrangements will be made for completed surveys and you will be notified of the pick up date.

I greatly appreciate all of your help and hope that together we can uncover important information about the self-esteem of children with mental retardation. To thank you for your participation, you will receive a \$10 gift certificate to Paul's Teacher's Pet upon completion of the study. If you would like to receive a copy of our completed study, please check the box below and return the bottom half of this paper with your name. The completed study will be delivered directly to your school in the spring upon completion. If you have questions or concerns, please feel free to contact me at 383-0437 or by email: [mdl0583@rit.edu](mailto:mdl0583@rit.edu). Thank you so much for your time!

Sincerely,

Megan Lococo

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Remove and return

\_\_\_\_\_ I wish to receive a copy of the completed study

Name: \_\_\_\_\_

School: \_\_\_\_\_

Appendix 2: Sample Child Behavior Checklist, Teacher Response Form



# TEACHER'S REPORT FORM FOR AGES 6-18

For office use only  
ID # \_\_\_\_\_

Your answers will be used to compare the pupil with other pupils whose teachers have completed similar forms. The information from this form will also be used for comparison with other information about this pupil. Please answer as well as you can, even if you lack full information. Scores on individual items will be combined to identify general patterns of behavior. Feel free to print additional comments beside each item and in the spaces provided on page 2. **Please print, and answer all items.**

PUPIL'S FULL NAME First _____ Middle _____ Last _____			<b>PARENTS' USUAL TYPE OF WORK, even if not working now</b> (Please be specific — for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.) FATHER'S TYPE OF WORK _____ MOTHER'S TYPE OF WORK _____	
PUPIL'S GENDER <input type="checkbox"/> Boy <input type="checkbox"/> Girl	PUPIL'S AGE _____	PUPIL'S ETHNIC GROUP OR RACE _____	THIS FORM FILLED OUT BY: (print your full name) _____	
TODAY'S DATE Mo. _____ Date _____ Yr. _____		PUPIL'S BIRTHDATE (if known) Mo. _____ Date _____ Yr. _____		
GRADE IN SCHOOL _____	NAME AND ADDRESS OF SCHOOL _____ _____ _____		Your gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Your role at the school: <input type="checkbox"/> Classroom Teacher <input type="checkbox"/> Counselor <input type="checkbox"/> Special Educator <input type="checkbox"/> Administrator <input type="checkbox"/> Teacher's Aide <input type="checkbox"/> Other (specify): _____	

- I. For how many months have you known this pupil? \_\_\_\_\_ months
- II. How well do you know him/her? 1. ☐ Not Well 2. ☐ Moderately Well 3. ☐ Very Well
- III. How much time does he/she spend in your class or service per week? \_\_\_\_\_
- IV. What kind of class or service is it? (Please be specific, e.g., regular 5th grade, 7th grade math, learning disability, counseling, etc.) \_\_\_\_\_
- V. Has he/she ever been referred for special class placement, services, or tutoring?  
☐ Don't Know 0. ☐ No 1. ☐ Yes — what kind and when? \_\_\_\_\_
- VI. Has he/she repeated any grades? ☐ Don't Know 0. ☐ No 1. ☐ Yes — grades and reasons: \_\_\_\_\_
- VII. Current academic performance — list academic subjects and check box that indicates pupil's performance for each subject:
- | Academic subject | 1. Far below grade       | 2. Somewhat below grade  | 3. At grade level        | 4. Somewhat above grade  | 5. Far above grade       |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. _____         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. _____         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. _____         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. _____         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. _____         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. _____         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Be sure you answered all items. Then see other side.**



*Please print. Be sure to answer all items.*

VIII. Compared to typical pupils of the same age:	1. Much less	2. Somewhat less	3. Slightly less	4. About average	5. Slightly more	6. Somewhat more	7. Much more
1. How hard is he/she working?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How appropriately is he/she behaving?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. How much is he/she learning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How happy is he/she?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IX. Most recent achievement test scores (optional):**

Name of test	Subject	Date	Percentile or grade level obtained

**X. IQ, readiness, or aptitude tests (optional):**

Name of test	Date	IQ or equivalent scores

Does this pupil have any illness or disability (either physical or mental)? ☐ No ☐ Yes— please describe:

What concerns you most about this pupil?

Please describe the best things about this pupil:

Please feel free to write any comments about this pupil's work, behavior, or potential, using extra pages if necessary.

Below is a list of items that describe pupils. For each item that describes the pupil **now or within the past 2 months**, please circle the **2** if the item is **very true or often true** of the pupil. Circle the **1** if the item is **somewhat or sometimes true** of the pupil. If the item is **not true** of the pupil, circle the **0**. Please answer all items as well as you can, even if some do not seem to apply to this pupil.

**0 = Not True (as far as you know)**

**1 = Somewhat or Sometimes True**

**2 = Very True or Often True**

- |   |   |   |  |
|---|---|---|--|
| 0 | 1 | 2 | 1. Acts too young for his/her age  |
| 0 | 1 | 2 | 2. Hums or makes other odd noises in class   |
| 0 | 1 | 2 | 3. Argues a lot  |
| 0 | 1 | 2 | 4. Fails to finish things he/she starts  |
| 0 | 1 | 2 | 5. There is very little that he/she enjoys   |
| 0 | 1 | 2 | 6. Defiant, talks back to staff  |
| 0 | 1 | 2 | 7. Bragging, boasting  |
| 0 | 1 | 2 | 8. Can't concentrate, can't pay attention for long                                   |
| 0 | 1 | 2 | 9. Can't get his/her mind off certain thoughts; obsessions (describe): _____         |
| 0 | 1 | 2 | 10. Can't sit still, restless, or hyperactive  |
| 0 | 1 | 2 | 11. Clings to adults or too dependent  |
| 0 | 1 | 2 | 12. Complains of loneliness  |
| 0 | 1 | 2 | 13. Confused or seems to be in a fog   |
| 0 | 1 | 2 | 14. Cries a lot  |
| 0 | 1 | 2 | 15. Fidgets  |
| 0 | 1 | 2 | 16. Cruelty, bullying, or meanness to others   |
| 0 | 1 | 2 | 17. Daydreams or gets lost in his/her thoughts                                       |
| 0 | 1 | 2 | 18. Deliberately harms self or attempts suicide                                      |
| 0 | 1 | 2 | 19. Demands a lot of attention   |
| 0 | 1 | 2 | 20. Destroys his/her own things  |
| 0 | 1 | 2 | 21. Destroys property belonging to others  |
| 0 | 1 | 2 | 22. Difficulty following directions  |
| 0 | 1 | 2 | 23. Disobedient at school  |
| 0 | 1 | 2 | 24. Disturbs other pupils  |
| 0 | 1 | 2 | 25. Doesn't get along with other pupils  |
| 0 | 1 | 2 | 26. Doesn't seem to feel guilty after misbehaving                                    |
| 0 | 1 | 2 | 27. Easily jealous   |
| 0 | 1 | 2 | 28. Breaks school rules  |
| 0 | 1 | 2 | 29. Fears certain animals, situations, or places other than school (describe): _____ |
| 0 | 1 | 2 | 30. Fears going to school  |
| 0 | 1 | 2 | 31. Fears he/she might think or do something bad                                     |
| 0 | 1 | 2 | 32. Feels he/she has to be perfect   |
| 0 | 1 | 2 | 33. Feels or complains that no one loves him/her                                     |

- |   |   |   |   |
|---|---|---|---|
| 0 | 1 | 2 | 34. Feels others are out to get him/her                                 |
| 0 | 1 | 2 | 35. Feels worthless or inferior   |
| 0 | 1 | 2 | 36. Gets hurt a lot, accident-prone                                     |
| 0 | 1 | 2 | 37. Gets in many fights   |
| 0 | 1 | 2 | 38. Gets teased a lot   |
| 0 | 1 | 2 | 39. Hangs around with others who get in trouble                         |
| 0 | 1 | 2 | 40. Hears sounds or voices that aren't there (describe): _____          |
| 0 | 1 | 2 | 41. Impulsive or acts without thinking                                  |
| 0 | 1 | 2 | 42. Would rather be alone than with others                              |
| 0 | 1 | 2 | 43. Lying or cheating   |
| 0 | 1 | 2 | 44. Bites fingernails   |
| 0 | 1 | 2 | 45. Nervous, high-strung, or tense                                      |
| 0 | 1 | 2 | 46. Nervous movements or twitching (describe): _____                    |
| 0 | 1 | 2 | 47. Overconforms to rules   |
| 0 | 1 | 2 | 48. Not liked by other pupils   |
| 0 | 1 | 2 | 49. Has difficulty learning   |
| 0 | 1 | 2 | 50. Too fearful or anxious  |
| 0 | 1 | 2 | 51. Feels dizzy or lightheaded  |
| 0 | 1 | 2 | 52. Feels too guilty  |
| 0 | 1 | 2 | 53. Talks out of turn   |
| 0 | 1 | 2 | 54. Overtired without good reason                                       |
| 0 | 1 | 2 | 55. Overweight  |
|   |   |   | 56. Physical problems <b>without known medical cause:</b>               |
| 0 | 1 | 2 | a. Aches or pains ( <b>not</b> stomach or headaches)                    |
| 0 | 1 | 2 | b. Headaches  |
| 0 | 1 | 2 | c. Nausea, feels sick   |
| 0 | 1 | 2 | d. Eye problems ( <b>not</b> if corrected by glasses) (describe): _____ |
| 0 | 1 | 2 | e. Rashes or other skin problems  |
| 0 | 1 | 2 | f. Stomachaches   |
| 0 | 1 | 2 | g. Vomiting, throwing up  |
| 0 | 1 | 2 | h. Other (describe): _____  |

**Please print. Be sure to answer all items.**

**0 = Not True (as far as you know)**

**1 = Somewhat or Sometimes True**

**2 = Very True or Often True**

- 0 1 2 57. Physically attacks people
- 0 1 2 58. Picks nose, skin, or other parts of body  
(describe): \_\_\_\_\_
- 0 1 2 59. Sleeps in class
- 0 1 2 60. Apathetic or unmotivated
- 0 1 2 61. Poor school work
- 0 1 2 62. Poorly coordinated or clumsy
- 0 1 2 63. Prefers being with older children  
or youths
- 0 1 2 64. Prefers being with younger children
- 0 1 2 65. Refuses to talk
- 0 1 2 66. Repeats certain acts over and over;  
compulsions (describe): \_\_\_\_\_
- 0 1 2 67. Disrupts class discipline
- 0 1 2 68. Screams a lot
- 0 1 2 69. Secretive, keeps things to self
- 0 1 2 70. Sees things that aren't there (describe):  
\_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 71. Self-conscious or easily embarrassed
- 0 1 2 72. Messy work
- 0 1 2 73. Behaves irresponsibly (describe): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 74. Showing off or clowning
- 0 1 2 75. Too shy or timid
- 0 1 2 76. Explosive and unpredictable behavior
- 0 1 2 77. Demands must be met immediately,  
easily frustrated
- 0 1 2 78. Inattentive or easily distracted
- 0 1 2 79. Speech problem (describe): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 80. Stares blankly
- 0 1 2 81. Feels hurt when criticized
- 0 1 2 82. Steals
- 0 1 2 83. Stores up too many things he/she doesn't  
need (describe): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 0 1 2 84. Strange behavior (describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 85. Strange ideas (describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 86. Stubborn, sullen, or irritable
- 0 1 2 87. Sudden changes in mood or feelings
- 0 1 2 88. Sulks a lot
- 0 1 2 89. Suspicious
- 0 1 2 90. Swearing or obscene language
- 0 1 2 91. Talks about killing self
- 0 1 2 92. Underachieving, not working up to  
potential
- 0 1 2 93. Talks too much
- 0 1 2 94. Teases a lot
- 0 1 2 95. Temper tantrums or hot temper
- 0 1 2 96. Seems preoccupied with sex
- 0 1 2 97. Threatens people
- 0 1 2 98. Tardy to school or class
- 0 1 2 99. Smokes, chews, or sniffs tobacco
- 0 1 2 100. Fails to carry out assigned tasks
- 0 1 2 101. Truancy or unexplained absence
- 0 1 2 102. Underactive, slow moving, or  
lacks energy
- 0 1 2 103. Unhappy, sad, or depressed
- 0 1 2 104. Unusually loud
- 0 1 2 105. Uses alcohol or drugs for nonmedical  
purposes (*don't* include tobacco)  
(describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 106. Overly anxious to please
- 0 1 2 107. Dislikes school
- 0 1 2 108. Is afraid of making mistakes
- 0 1 2 109. Whining
- 0 1 2 110. Unclean personal appearance
- 0 1 2 111. Withdrawn, doesn't get involved with  
others
- 0 1 2 112. Worries
- 0 1 2 113. Please write in any problems the pupil has  
that were not listed above.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Appendix 3: Sample Demographic Questions

**Fall/Winter Pre-Test Questions**

PLEASE DO NOT REMOVE

What are the child's initials? \_\_\_\_\_

What are your initials? \_\_\_\_\_

If this information is available to you, please indicate the child's most recent full scale IQ: \_\_\_\_\_

If this information is not available to you, please indicate the child's level of functioning.

Mild

Moderate

Severe

Profound

**PLEASE COMPLETE ONLY THE HIGHLIGHTED QUESTIONS**

**Fall/Winter Post-Test Questions**

PLEASE DO NOT REMOVE

What are the child's initials? \_\_\_\_\_

What are your initials? \_\_\_\_\_

Did the child participate in the Fall Games this year? Y / N

Has the child participated in Special Olympics in the past? Y / N

If so, how many years? \_\_\_\_\_

PLEASE COMPLETE ONLY THE HIGHLIGHTED QUESTIONS